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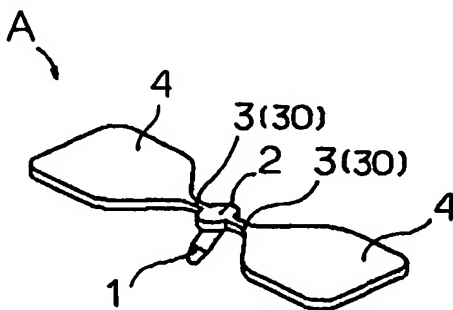
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- (81) 指定国 (国内): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
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[続葉有]

(54) Title: HOLE-FORMING PIN FOR INSERTING INDWELLING NEEDLE AND JIG FOR INSTALLING THE PIN

(54) 発明の名称: 留置針挿入用ホール形成ピンおよびその装着治具



from a skin surface by sliding the slide body (7).

(57) Abstract: A hole-forming pin for inserting a dwelling needle, with which pin load to a living body is minimized as much as possible, and an installation jig for installing the pin from a skin surface. A pin (A) for forming a hole for inserting a dwelling needle in a range from a skin surface to blood vessels is structured of a circular cylinder-like insertion portion (1) having a curved face on its tip, an insertion stop portion (2) provided at the base end of the insertion portion (1), and wing portions (4) connected to the insertion stop portion (2) through connection branches (3). In a jig for installing the hole-forming pin (A), a main body (6) of an installation jig (B) and a slide body (7) sliding in a length direction of the main body (6) are assembled together, and support means (10) for supporting the hole-forming pin for inserting a dwelling needle is provided on the tip portion of the slide body (7) and/or on the tip portion of the main body (6) of the installation jig. The hole-forming pin (A) for inserting a dwelling needle is installed

(57) 要約: 生体の負荷を極力小さくするような留置針挿入用ホール形成ピン、およびそのホール形成ピンを皮膚表面から装着するための装着治具を提供する。留置針を皮膚表面から血管にかけて留置するための留置針挿入用ホールを形成するピンAを、先端に曲面を有する円柱状挿入部1と、該挿入部1の基端に設けられた挿入停止部2と、該挿入停止部2に柔軟な接続枝3を介して接続された翼部4とから構成し、このホール形成ピンAを装着する治具として、装着治具Bの本体6と、その本体6に本体の長さ方向に摺動する摺動体7を組み込み、前記摺動体7の先端部または／および前記装着治具の本体6の先端部には留置針挿入用ホール形成ピンを支持するための支持手段10を設け、前記摺動体7の摺動によって留置針挿入ホール形成用のピンAを皮膚表面から装着させる。

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/09417

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.<sup>7</sup> A61M5/158

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.<sup>7</sup> A61M5/158

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1926-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-2003	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E, A	JP 2002-306593 A (Nipro Corp.), 22 October, 2002 (22.10.02), Full text; all drawings & EP 1249210 A	1-16
A	JP 2000-176009 A (Nissho Corp.), 27 June, 2000 (27.06.00), Full text; all drawings (Family: none)	1-16

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search  
11 November, 2003 (11.11.03)Date of mailing of the international search report  
25 November, 2003 (25.11.03)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/09417

## Box I Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Claims 1 to 8 relate to a hole-forming pin for inserting a dwelling needle, having a specific structure.

Claims 9 to 16 relate to a jig for installing a hole-forming pin for inserting a dwelling needle. The jig can also be used for those hole-forming pins for inserting a dwelling needle that have structures other than that specified in Claims 1 to 8.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.